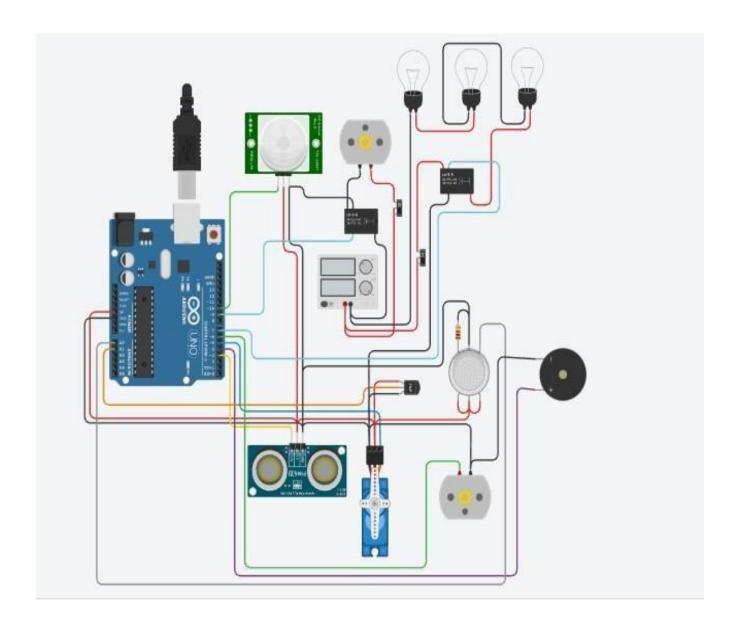
## **ASSIGNMENT-1**

Assignment Date	30 september 2022
Student Name	Sowmya.P
Student Roll Number	311419106029
Maximum Marks	2 Marks

## QUESTION:

Build a smart home in tinkercard use atleast two sensor, LED, buzzer in a circuit. Simulate in a single code.

Circuit connections:



```
#include <Servo.h>
int Cabinet = 0;
int PIRS = 0;
int Gass = 0;
int Temps = 0;
long readUltrasonicDistance(int triggerPin, int echoPin)
{
pinMode(triggerPin, OUTPUT); // Clear the trigger
digitalWrite(triggerPin, LOW); delayMicroseconds(2); //
Sets the trigger pin to HIGH state for 10 microseconds
digitalWrite(triggerPin, HIGH); delayMicroseconds(10);
digitalWrite(triggerPin, LOW); pinMode(echoPin,
INPUT);
// Reads the echo pin, and returns the sound wave travel time in microseconds return
pulseIn(echoPin, HIGH);
}
Servo servo_5;
void setup()
```

```
{
Serial.begin(9600);
servo_5.attach(5, 500, 2500);
pinMode(10, INPUT); pinMode(9,
OUTPUT); pinMode(7, OUTPUT);
pinMode(A1, INPUT); pinMode(6,
OUTPUT); pinMode(A0, INPUT);
pinMode(4, OUTPUT);
}
void loop()
{
Cabinet = 0.01723 * readUltrasonicDistance(3, 3);
Serial.println(Cabinet); if (Cabinet < 15) {
servo_5.write(90); delay(5000); // Wait for 5000
millisecond(s)
 } else {
servo_5.write(0);
 }
 PIRS = digitalRead(10);
Serial.println(PIRS); if
(PIRS == HIGH) {
digitalWrite(9, HIGH);
digitalWrite(7, HIGH);
 }
          else
                     {
```

```
digitalWrite(9, LOW); digitalWrite(7,
LOW);
}
Temps = (-40 + 0.488155 * (analogRead(A1) - 20));
Serial.println(Temps); if (Temps >= 30) {      digitalWrite(6,
HIGH);
} else {
digitalWrite(6, LOW);
}
 Gass = analogRead(A0);
Serial.println(Gass); if
(Gass >= 220) {
digitalWrite(4, HIGH);
} else {
digitalWrite(4, LOW);
}
}
```